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Conference Abstract

Tools and Techniques of Implementation Science to Support Wide-Spread Adoption of Biodiversity Literacy Standards

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Abstract

Implementation science boasts tools and techniques to increase the chances of adoption of best practices to a wide variety of users. Theoretical roots of implementation science are present in education, mental health and health services research. This talk will highlight the application of implementation science principles to the wide-spread adoption of biodiversity data literacy standards. Perspectives from key stakeholders including biology instructors of all ranks at community colleges, minority serving institutions, primarily undergraduate institutions, research intensive universities, biodiversity researchers, and scientific society leaders and policy makers, will be presented according to need, fit, resources, capacity and readiness to support the implementation of biodiversity data literacy standards in undergraduate biology curriculums. Through systematic exploration of the facilitators and barriers to the implementation of biodiversity data literacy standards across multiple participants and people groups, specific action steps will be highlighted to address such barriers.

Consistent with the *Vision and Change in Undergraduate Biology Education: A Call to Action*, this talk will describe the collaborations completed and in-process by the BLUE network that support an accessible student and data-centered pedagogy, designed to

support diverse and underrepresented learners. For example, core biodiversity data literacy competencies will be described according to field leaders and perceived barriers to implementation of these competencies will provide a springboard for further discussion and action.

Principles of implementation science explicitly recognize that best practices such as biodiversity data literacy standards, are useful only if they reach diverse intended users – otherwise, best practices and core competencies may have the opposite effect – contributing to educational and health disparities. This talk will highlight the active implementation strategies BLUE has employed to support engagement across distinct people groups to support implementation of these standards. As opposed to developing standards and having a "wait and hope" approach to these standards distilling to undergraduate biology curriculums, strategies discussed in this talk will serve as a catalyst for wide-spread adoption of the standards scientists have worked so rigorously to foster.

Keywords

biodiversity standards, implementation science, biology education

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